Schlumberger

FOUR — ARM HIGH RESOLUTION CONTINUOUS DIPMETER

COMPANY FENIX & SCISSON INC.
WELL OLD MAID FLAT #7A
FIELD OLD MAID FLAT AREA
COUNTY CLACKAMAS STATE OREGON

LOCATION		
2460'S & 2091'W		
API SERIAL NO	SEC 15	TWP 2S	RANGE 8E

Other Services:
DIL
BHC/GR
FDC/CNL/GR/NGT
VDL
TEMP

Permanent Datum: GL ; Elev.: 2760
Log Measured From GL 0 Ft. Above Perm. Datum
Drilling Measured From GL

Elev.: K.B.
D.F. 2111.6
G.L. 2160

COUNTY
FIELD
LOCATION
WELL
COMPANY

Date	9-29-80			
Run No.	TWO			
Depth—Driller	6021			
Depth—Logger (Schl.)	5951			
Btm. Log Interval	5936			
Top Log Interval	1190			
Casing—Driller	10 3/4 @ 1190	@	@	@
Casing—Logger	1190			
Bit Size	9 7/8			
Type Fluid in Hole	WATER			
Dens. | Visc.	- | -			
pH | Fluid Loss	- | - ml	ml	ml	ml
Source of Sample	CIRC			
Rm @ Meas. Temp.	12.7 @ 80 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	8.4 @ 80 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	8.8 @ 80 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	m | m			
Rm @ BHT	4.88 @ 208 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0800			
TIME Logger on Bottom	0500			
Max. Rec. Temp.	208 °F	°F	°F	°F
Equip. | Location	8126 | 4408			
Recorded By	KAISER / STEFAN			
Witnessed By Mr.	PRIEST			

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

REMARKS: Service Order No. 13562 Magnetic Declination

Run No.	1	2	3	4
Tool Type		HDT D		
HDP		752		
DDR | TTR		— | —		
DPI		—		
HDM		—		
HDE		—		
HDS		1954		
Adapter Head		—		
UG | CG | SAH		— | — | —		
5" Film | 10" Film | 60" Record		— | —		
Analog | Digital		| —		
TIME Circulation Stopped		0800		
TIME Schl. on Bottom		0500		

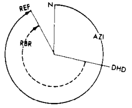
ROLL NO.	INTERVAL

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

DEFINITIONS

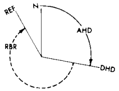
(DHD) HIGH SIDE OF TOOL = Direction from center of tool to upper side of tool.
(N) NORTH = Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE = Direction from center of tool to #1 electrode.

(AZI) AZIMUTH OF REFERENCE ELECTRODE = Clockwise angle from N to REF.
(RBR) RELATIVE BEARING = Clockwise angle from DHD to REF.
(AHD) AZIMUTH OF HOLE DEV. (TOOL AXIS) = Clockwise angle from N to DHD.



LOW ANGLE UNIT ☐

EXAMPLE
HDM - Low Angle Unit (0-36°)
AZI (solid curve) = 330°
RBR (dotted curve) = 230°
AHD = AZI - RBR = 330° - 230° = 100°



HIGH ANGLE UNIT ☒

EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD - RBR = 100° - 230° = 330°

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE

STYP LW MCT DEG 72 BS INCH 9.875

DO 0.0 BHS OPEN FPHI PHIX

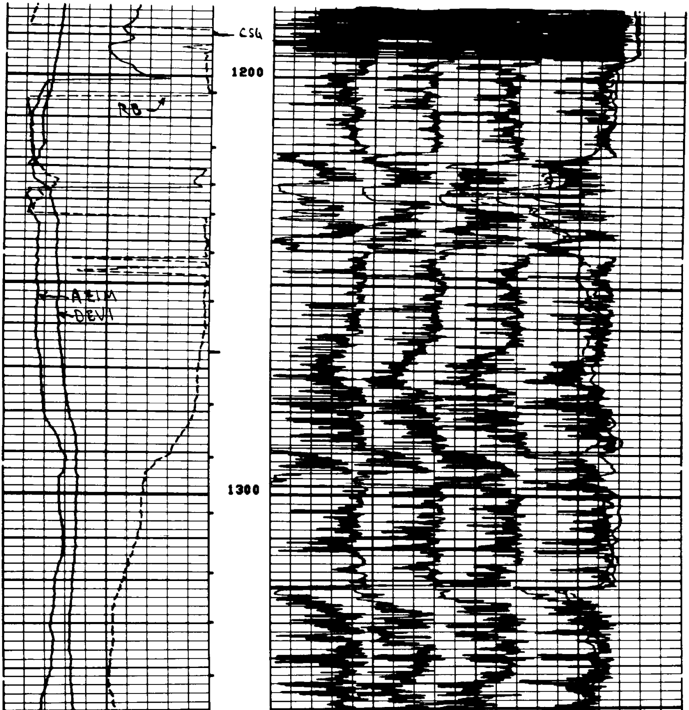
DEVI(DEG)			C2 (INCH)	
-1.000	9.000		28.00	8.000

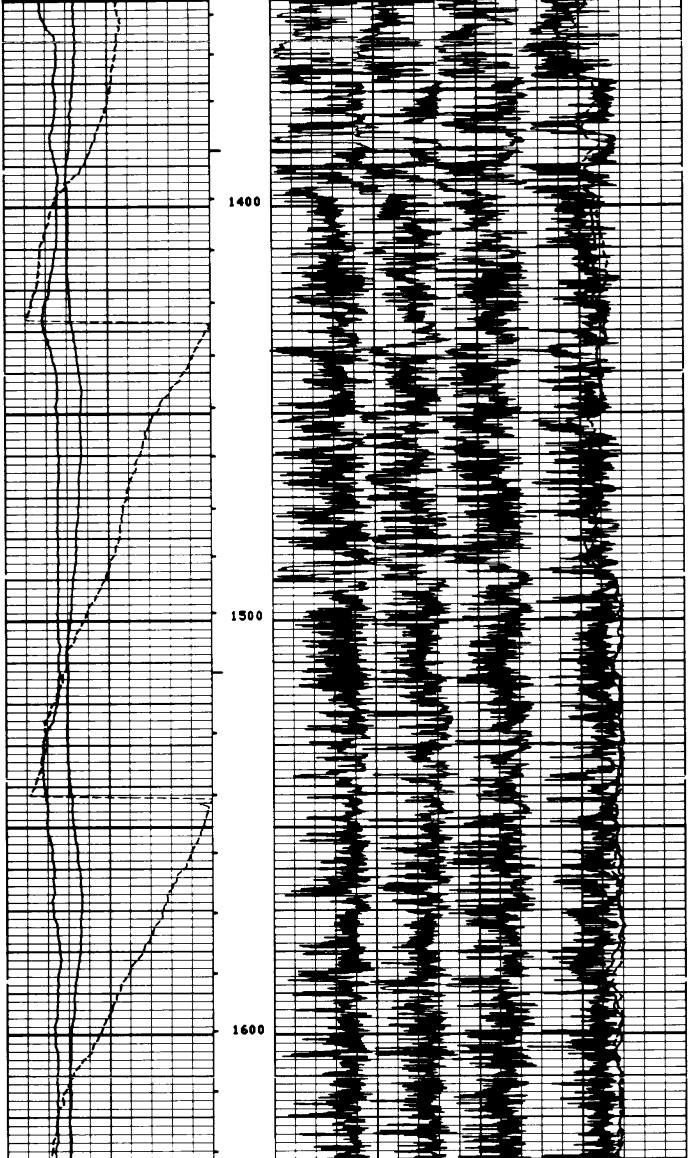
RB (DEG)	
-40.00	360.0

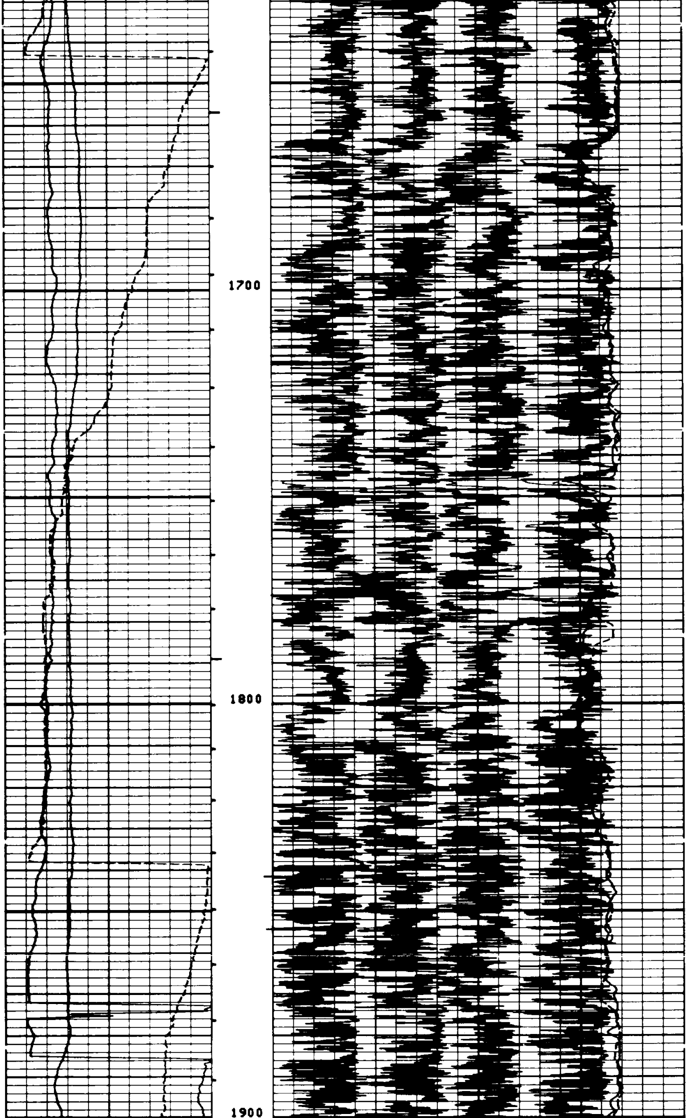
AZIM(DEG)			C1 (INCH)	
-40.00	360.0		28.00	8.000

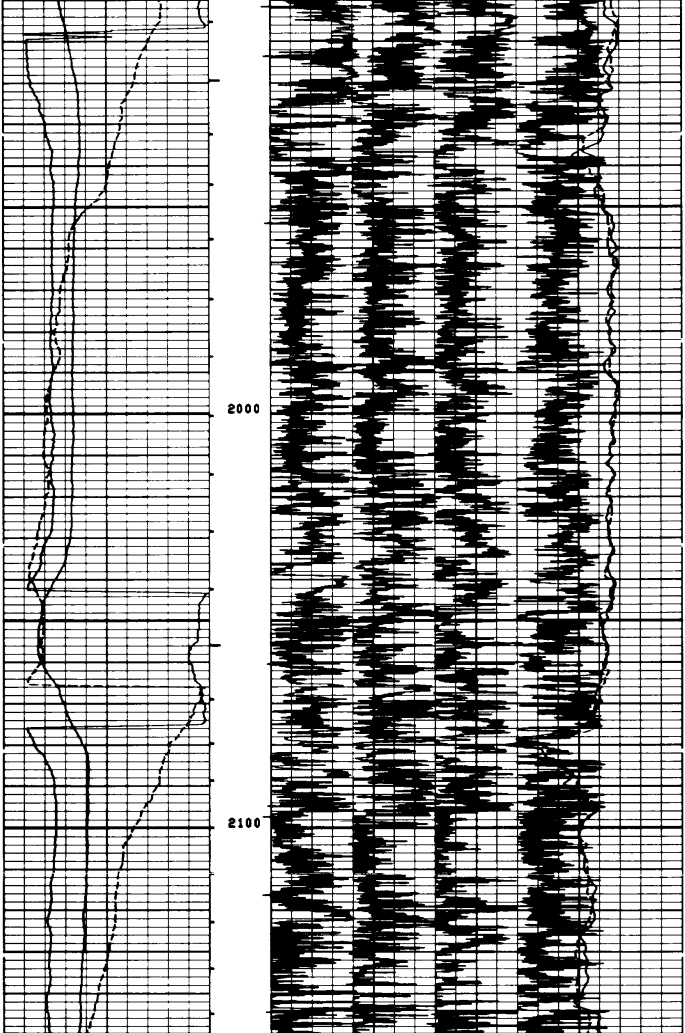
FILE

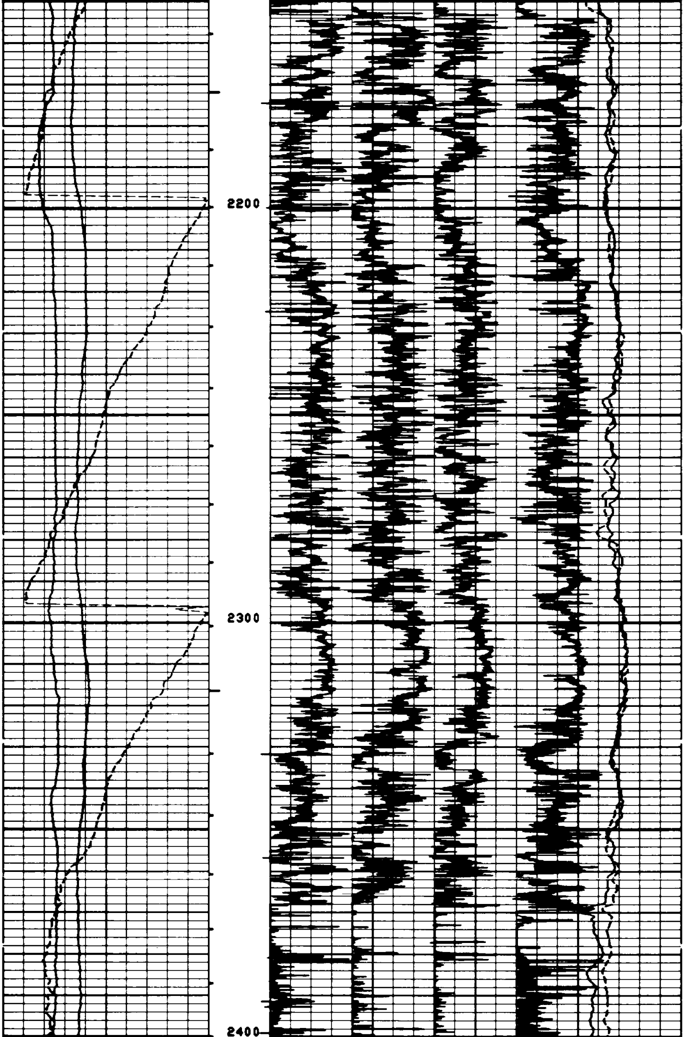
5

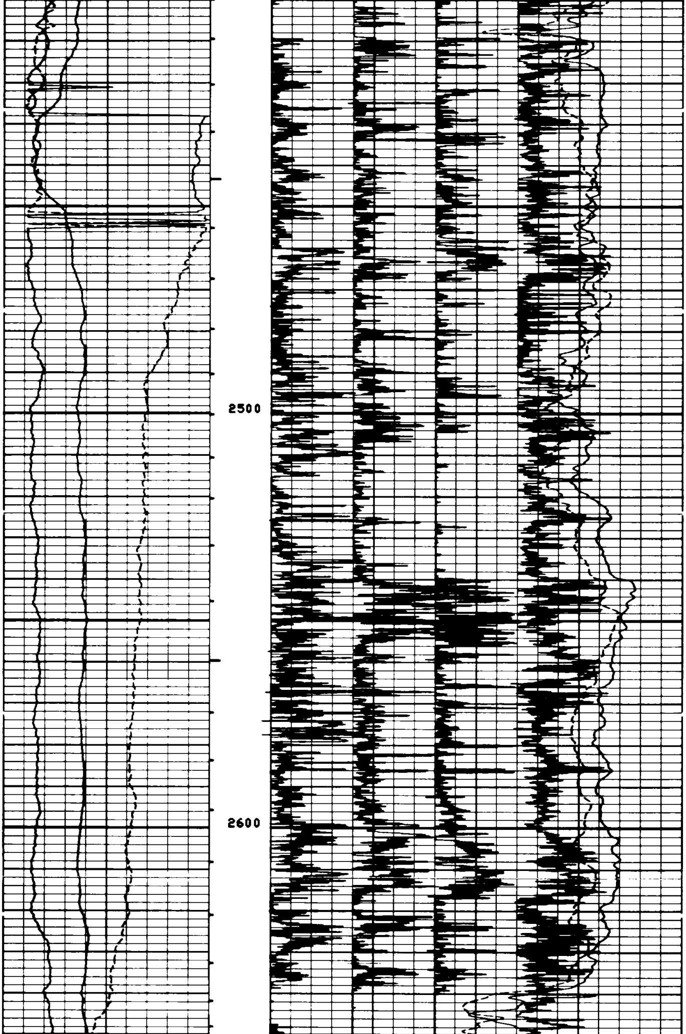


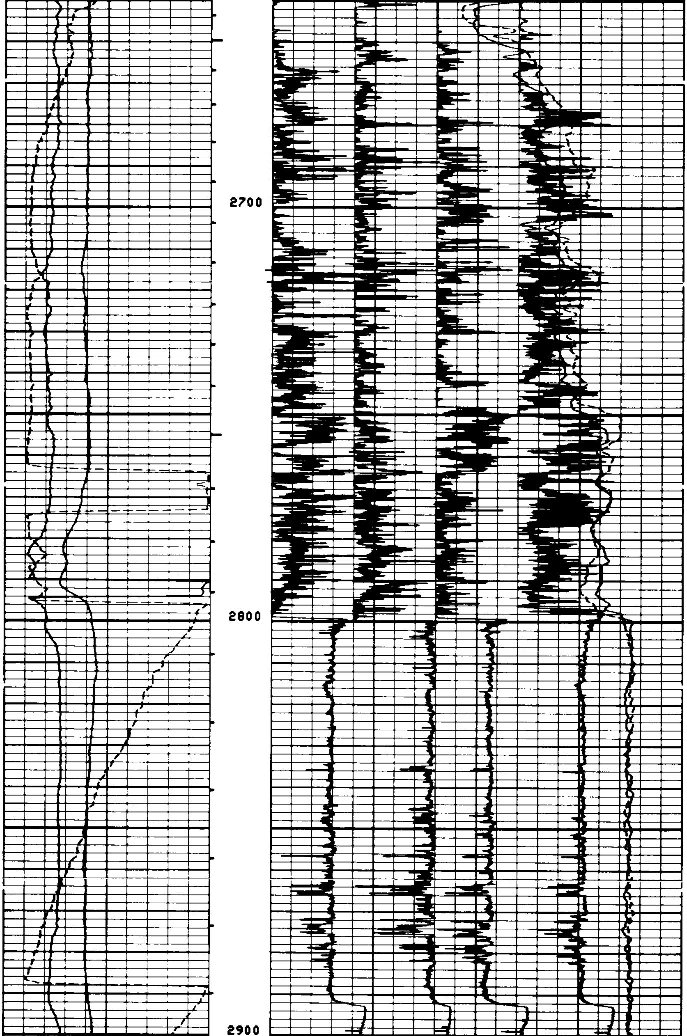


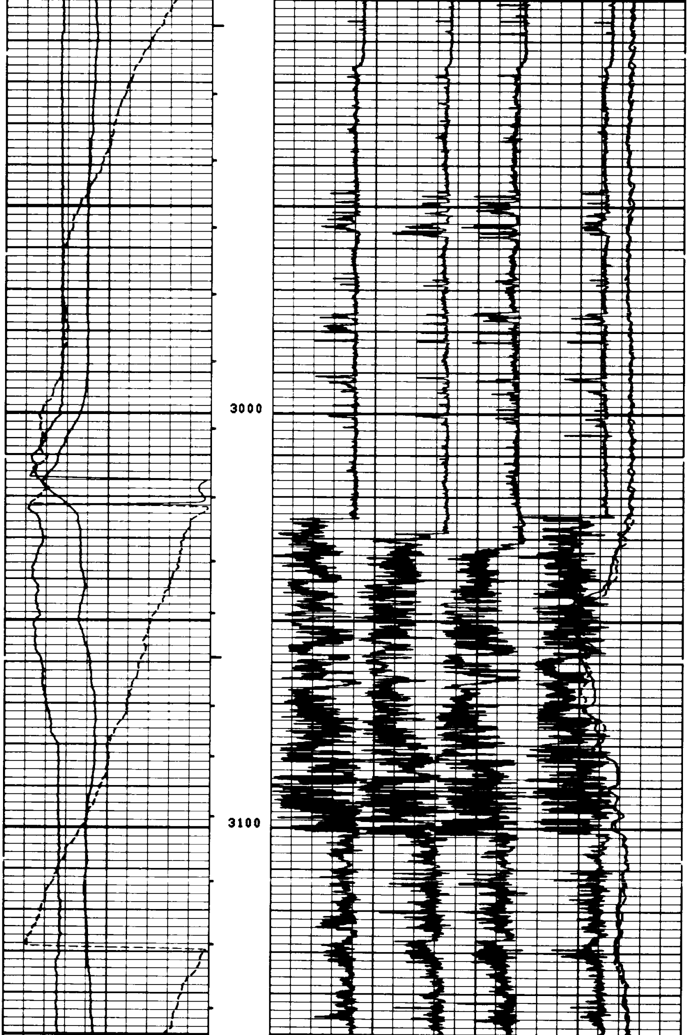


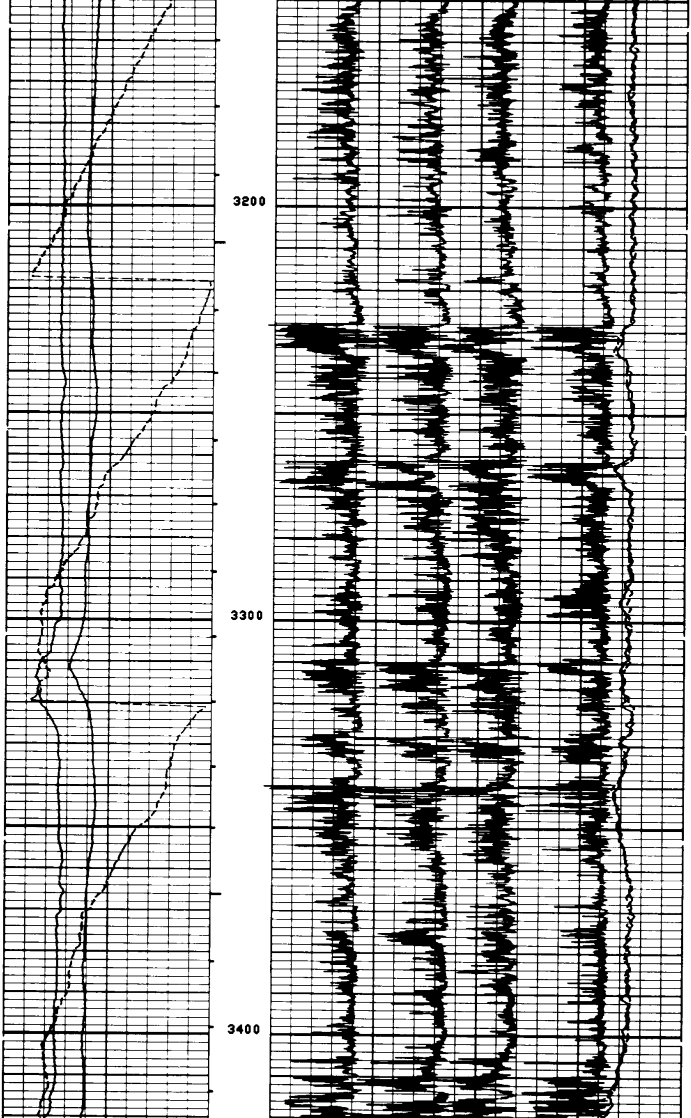


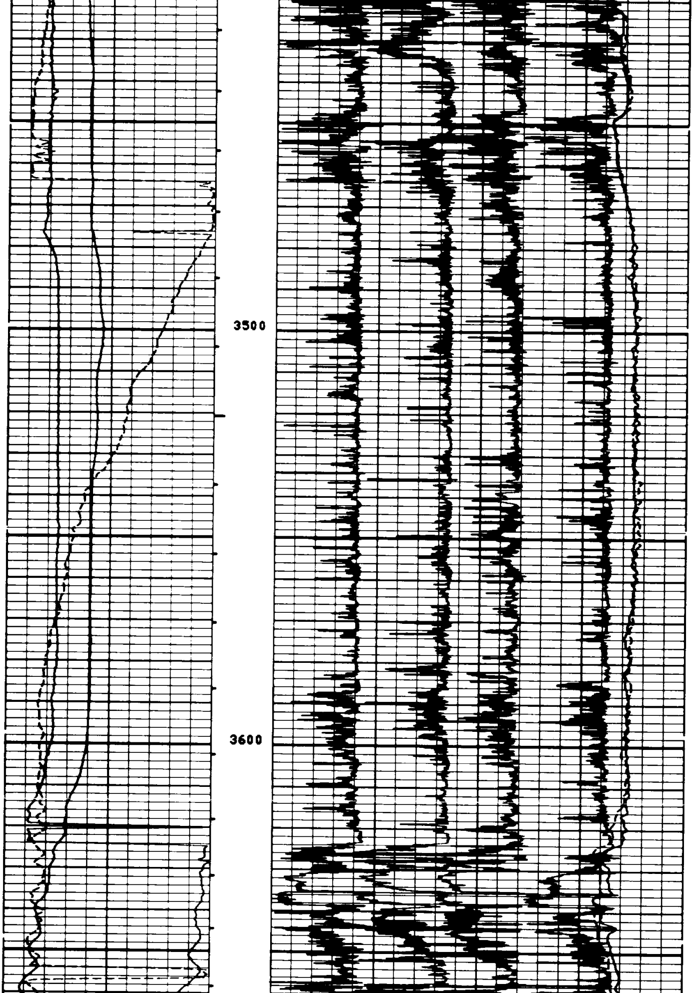


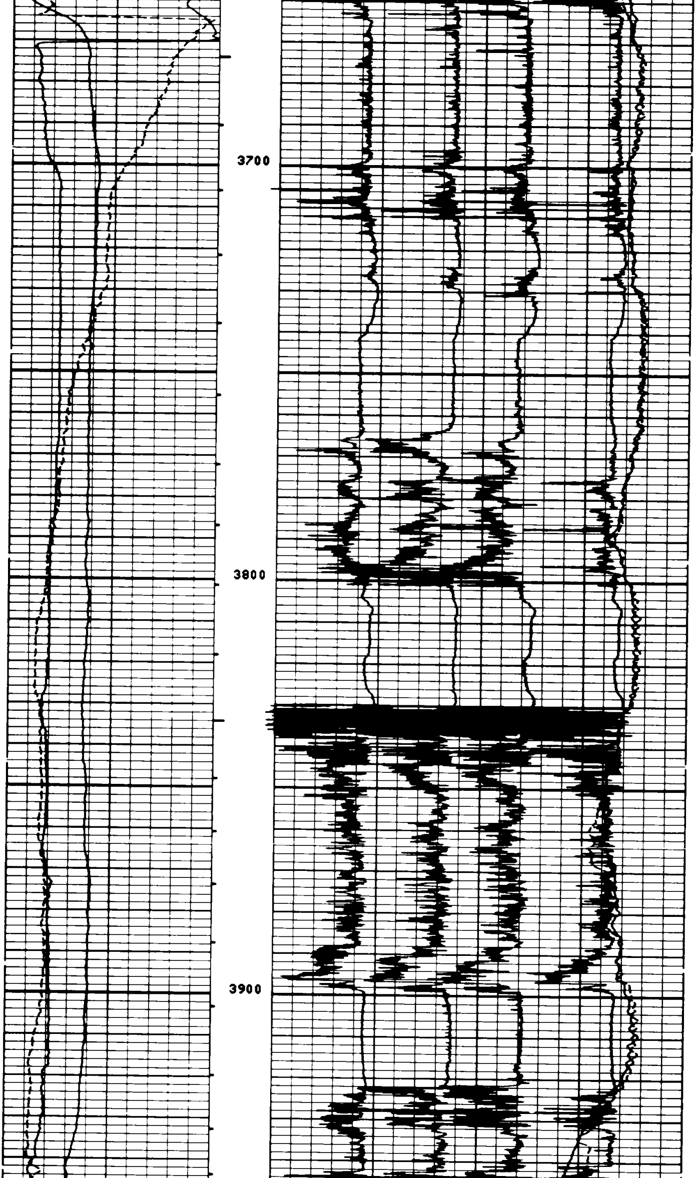


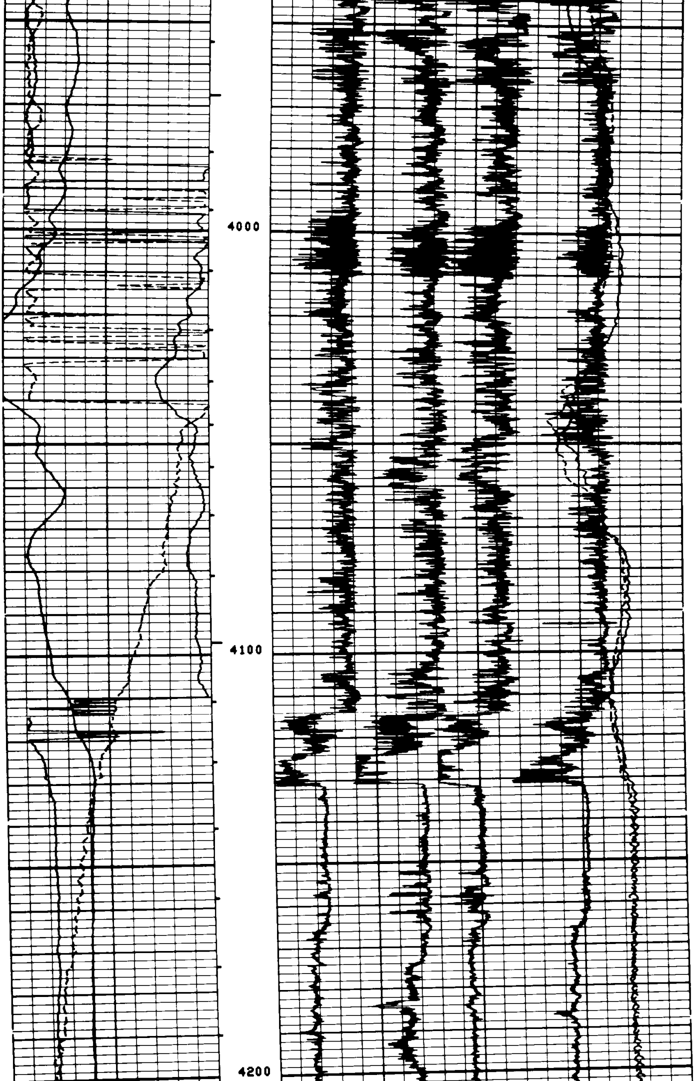


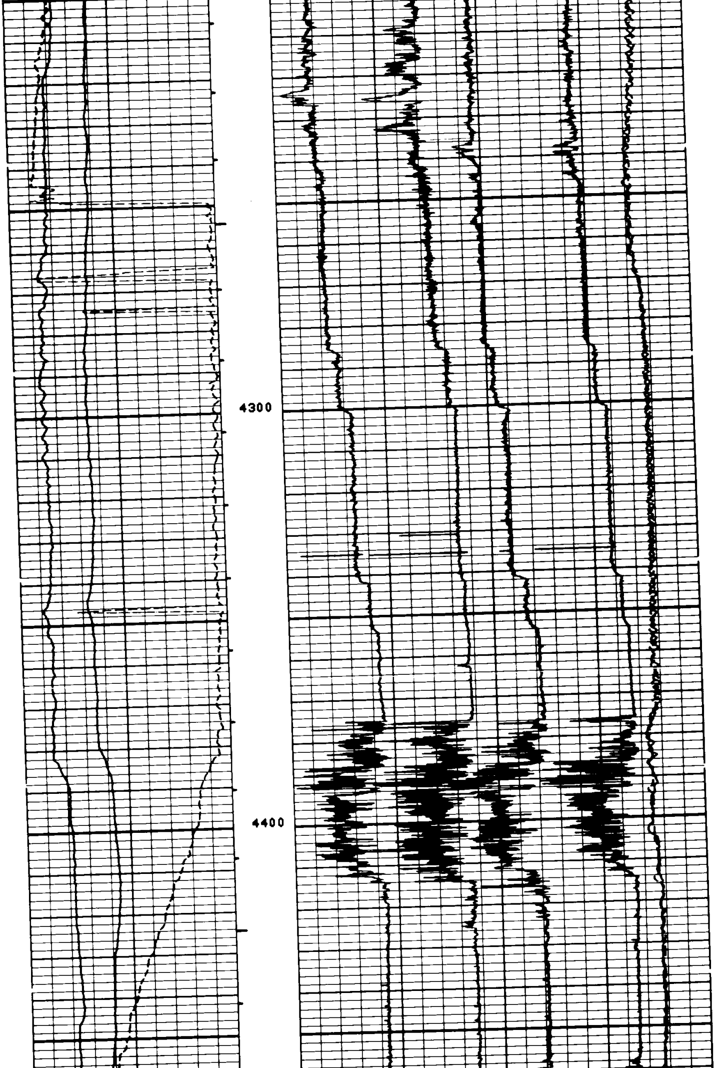


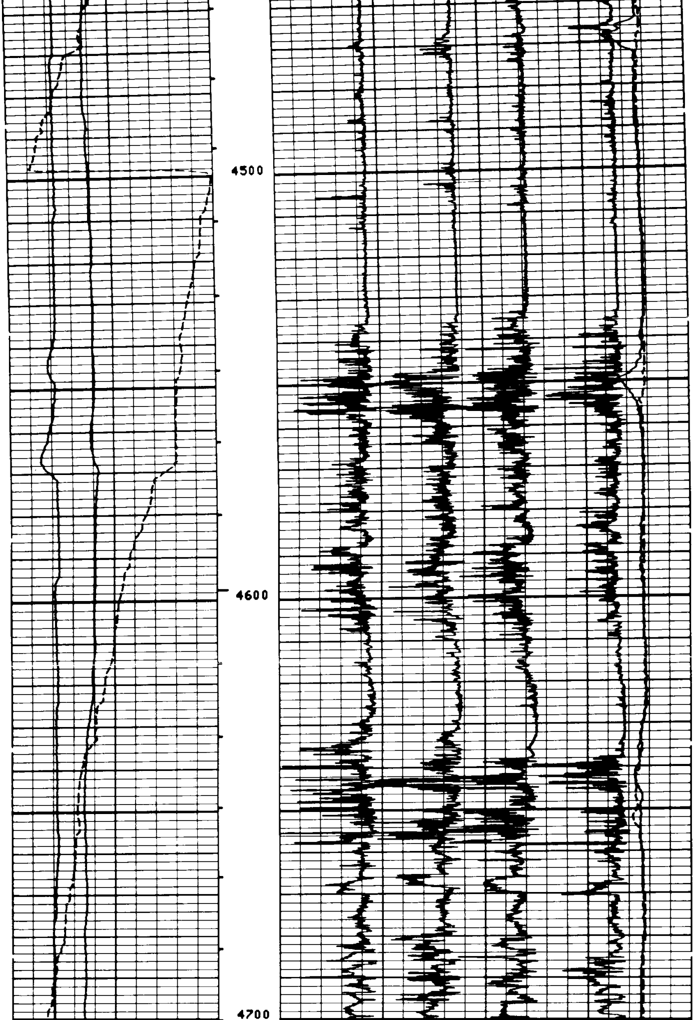


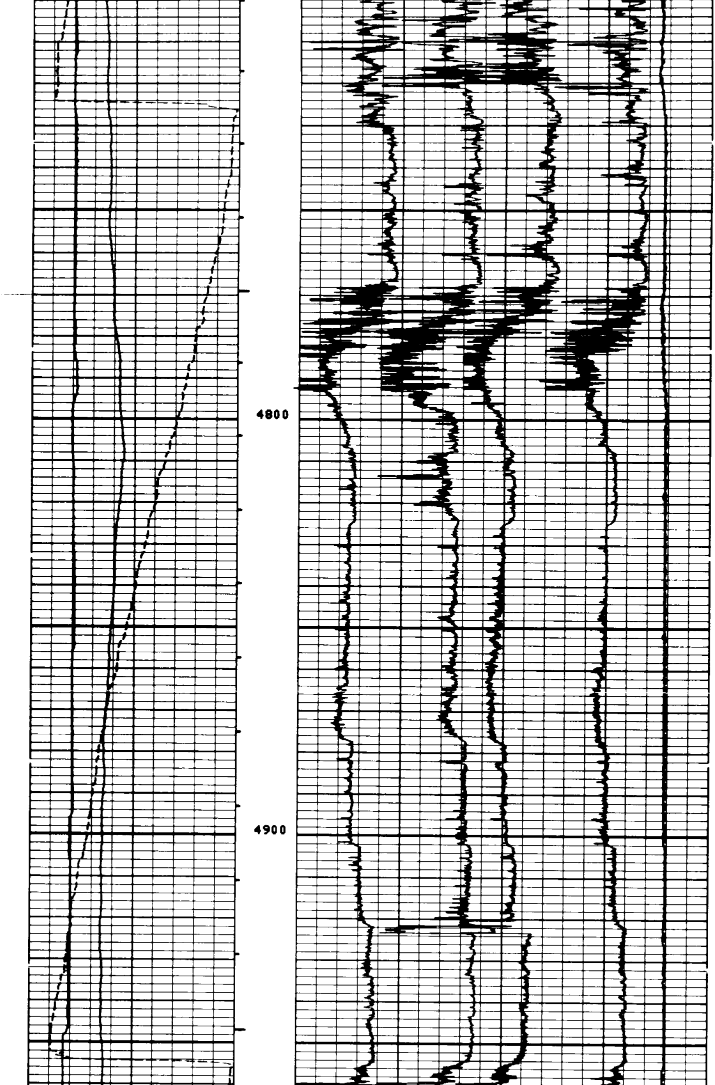


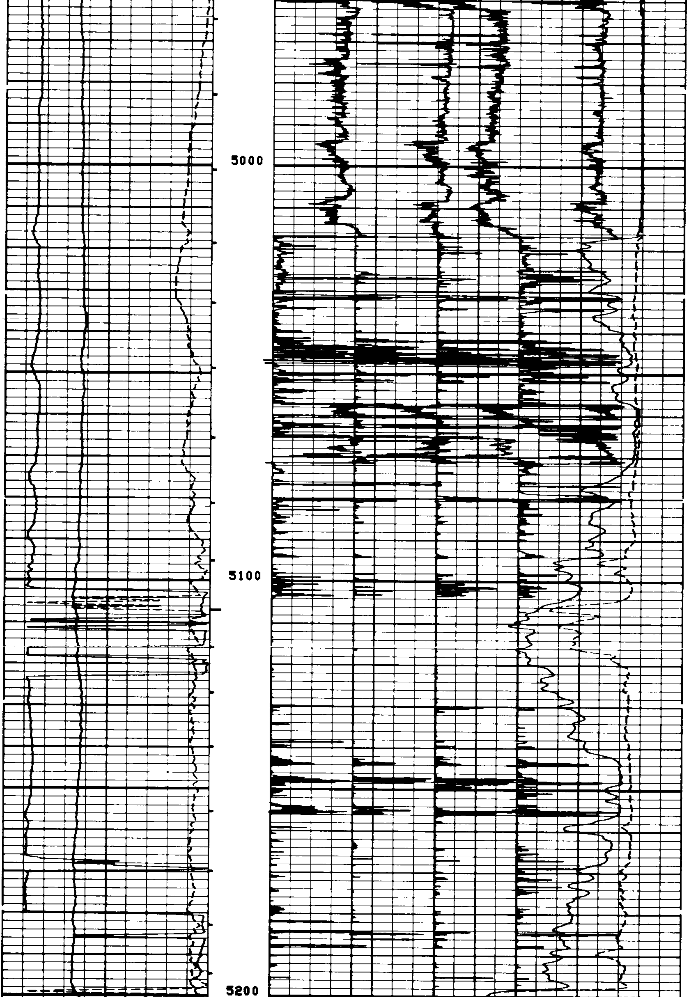


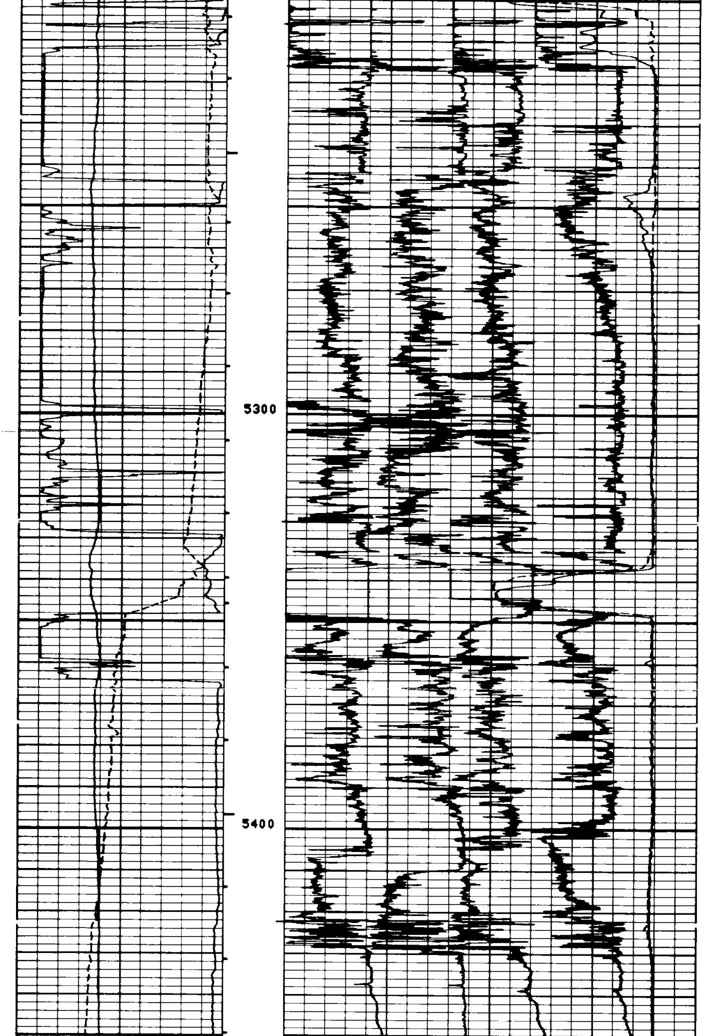


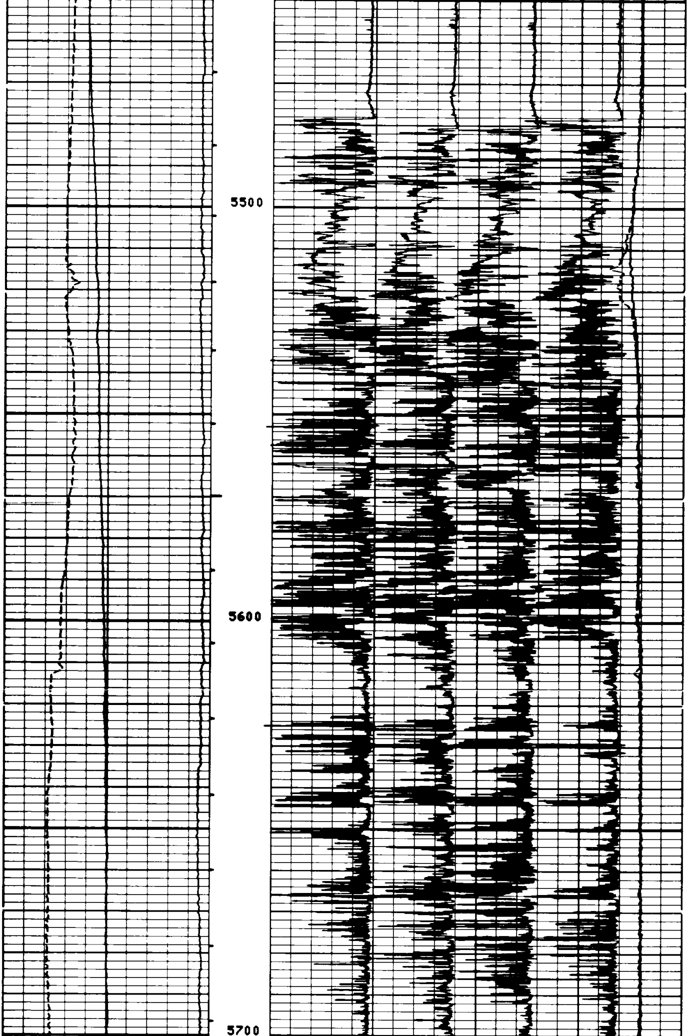


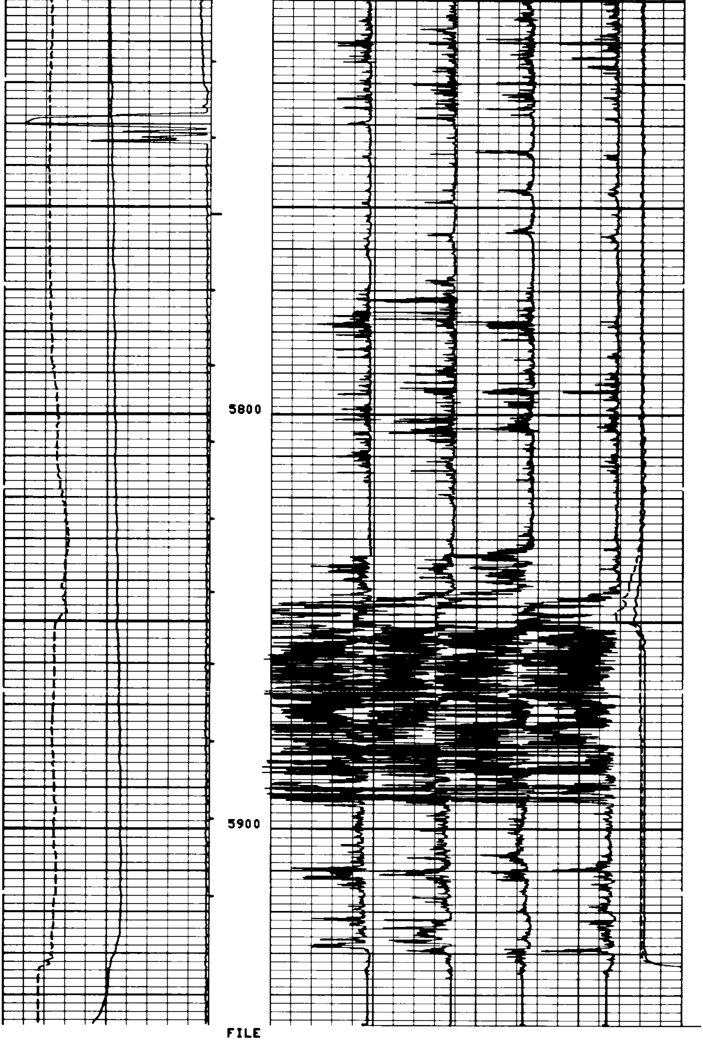












FILE

5

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
28.00 8.000
C1 (INCH)
28.00 8.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		LW	MCT	DEG	72	BS	INCH	9.875
DD		0.0	BHS		OPEN	FPHI		PHIX

PARAMETERS

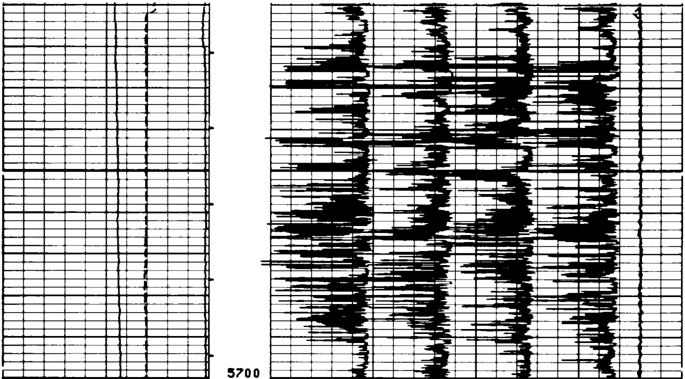
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		LW	MCT	DEG	72	BS	INCH	9.875
DD		0.0	BHS		OPEN	FPHI		PHIX

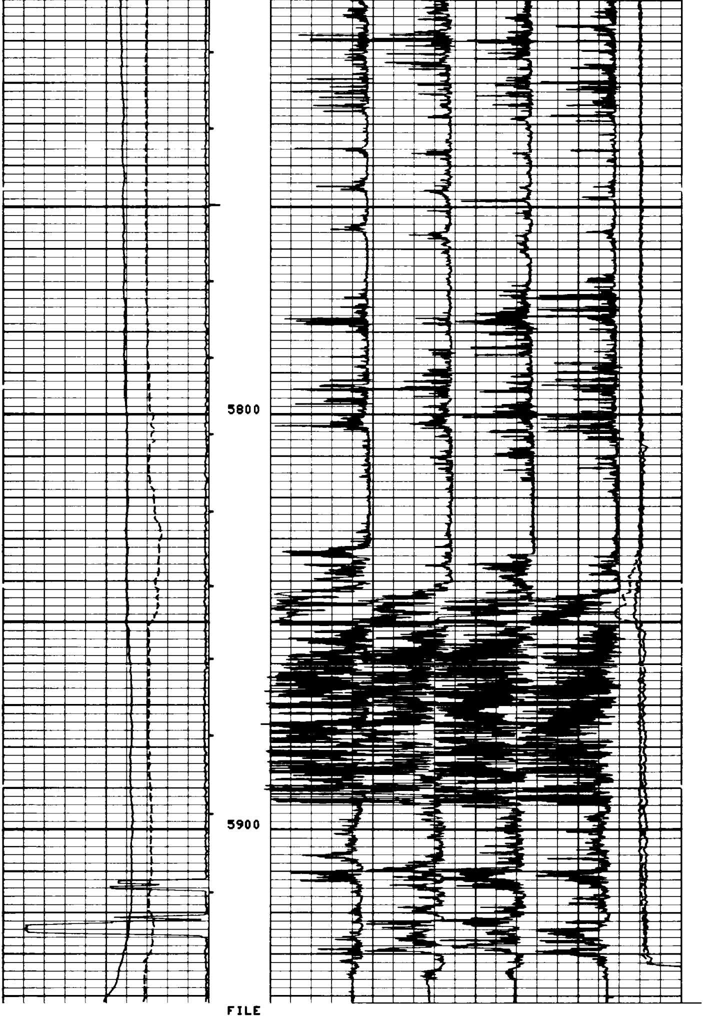
DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
28.00 8.000
C1 (INCH)
28.00 8.000

FILE

4





FILE

4

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
28.00 8.000
C1 (INCH)
28.00 8.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		LW	MCT	DEG	72	BS	INCH	9.875
DO		0.0	BHS		OPEN	FPHI		PHIX

PARAMETERS

NAME UNIT VALUE NAME UNIT VALUE NAME UNIT VALUE

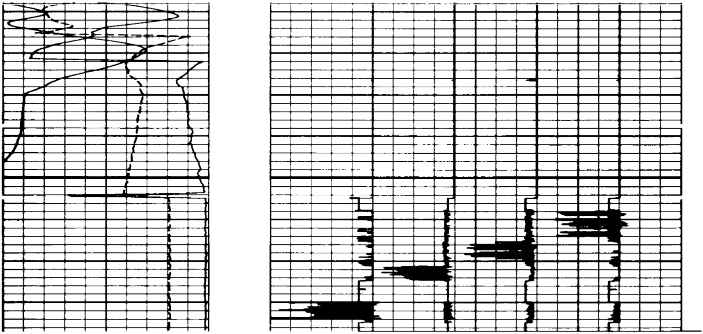
STYP LW MCT DEG 72 BS INCH 9.875
DO 0.0 BHS OPEN FPHI PHIX

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
28.00 8.000
C1 (INCH)
28.00 8.000

FILE

3



FILE

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DEVI(DEG) -1.000 9.000		
RB (DEG) -40.00 360.0		C2 (INCH) 28.00 8.000
AZIM(DEG) -40.00 360.0		C1 (INCH) 28.00 8.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		LW	MCT	DEG	72	BS	INCH	9.875
DO		0.0	BHS		OPEN	FPHI		PHIX

BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 80/09/29
PROGRAM FILE: HDT (VERSION 18.2 80/ 4/29)

HDT CALIPER CALIBRATION SUMMARY

	MEASURED		CALIBRATED		
	SMALL	LARGE	SMALL	LARGE	UNITS
C1	7.0	14.3	6.0	12.0	IN
C2	7.1	14.5	6.0	12.0	IN

FILE

2